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ABSTRACT

To determine the variety of physician's assistant programs already established and ascertain what specific tasks physicians are willing to delegate to assistants, the UCLA Allied Health Professions Project staff corresponded with schools having physicans's assistant programs, interviewed local physicians, and surveyed selected physicians regarding their views of the functions that could be performed by a physician's assistant. Results of the study procedures revealed that: (1) There is a need for standardization of physician's assistant programs; (2) Many physicians are ambivalent about hiring the physician's assistant because of legal complications and other problems; (3) Assembly Bill 2109, passed in 1970 by the California State Senate, should make it easier for the physician's assistant to work in California; (4) Candidates for physician's assistant programs will, for the most part, be recruited from the pool of former military corpsmen; and (5) Further research is needed to determine the specific tasks doctors would delegate to a qualified assistant. A copy of the survey questionnaire is included. (Several pages may be light.) (SB)

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THE UCLA ALLIED HEALTH PROFESSIONS PROJECTS

A REPORT ON AN EMERGING OCCUPATION:

THE PHYSICIAN'S ASSISTANT

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SUMMARY

The Allied Health Professions Projects (AHPP), a national curriculum research and development program funded by the U.S. Office of Education, initiated operations in 1968. Establishment of the Projects reflects increasing awareness of the shortage of personnel to meet the fast-growing demand for health care services. Among the occupations studies is the Physician's Assistant.

Objectives

1. To investigate the variety of Physician's Assistant programs already established.

2. To ascertain what specific tasks physicians are willing to delegate to assistants.

Procedures

1. Correspondence with schools that have Physician's Assistant programs to gain information about educational requirements, functions, and manpower sources of Physician's Assistants.

2. Interviews with local physicians.

3. Distribution and evaluation of a questionnaire sent by the Allied Health Professions Projects to selected physicians seeking their views of the functions that could be performed by a Physician's Assistant.

Findings and Recommendations

1. There is a need for standardization of Physician's Assistant programs.

2. Many physicians are ambivalent about hiring the Physician's Assistant, because of legal complications and other problems.

3. Assembly Bill 2109, passed in 1970 by the California State Senate, should make it easier for Physician's Assistants to work in California.

4. Further research is warranted in order to ascertain the specific tasks doctors would delegate to a qualified assistant.

5. Candidates for Physician's Assistant programs will, for the most part, be recruited from the pool of former military corpsmen.

INTRODUCTION

In 1966 there were 314,000 physicians in the United States, or 156 physicians per 100,000 population (approximately one physician per 641 patients). This ratio is a slight numerical improvement over the 1950 statistics, and hence it would seem that there has been some amelioration of the health manpower crisis. Such a conclusion is premature, however, and fails to take into account the absence of health care in rural and poverty areas. For instance, during the past several years, rural physicians (like the general population) have migrated to urban locations, leaving a shortage of doctors in rural communities. To gain a better understanding of this drift away from small towns, the Health Resources Study Center at the University of Washington studied the problem in four communities. As shown in the table below, it is apparent that the population ratio per private physician engaged in patient care has increased in the counties studied and is most dramatic in rural areas.

POPULATION PER PHYSICIAN BY COUNTY

State of Washington - 1968

County	1950	1960	1967
King, urban	714	642	506
Spokane, urban	774	768	714
Douglas, rural	2161	2978	5033
Skamania, rural	4788	5207	5700

Such a drift has led Dr. Richard A. Smith of the Medex Program to comment that the "...loss of a single physician can rapidly transform a relatively satisfactory level of health care to a crisis situation because it is becoming increasingly difficult for rural communities to attract physicians..."[2] From this and other indications, it is obvious that many people in this country are not receiving primary health care. Furthermore, as the population continues to spiral there is the danger, as stated by Dr. Roger O. Egeberg, of an "impending breakdown in the delivery of health care."

We can therefore see that a health emergency is upon us, and the question now is not only how to improve health care to meet the needs of future generations, but how to provide the immediate primary care required by millions of people. The flood of suggestions inundating the field of manpower problems has provided three valuable ideas. First, it has been suggested that the real problem results from a dearth of physicians, and thus the solution is simultaneously to

increase medical school enrollment and the number of medical schools. Second, an expansion of current paramedical occupations would offer immediate progress, and is thus the route that should be taken. Third, and most innovatively, it has been proposed that a new group of occupations be established to relieve the physician of many of his most time-consuming tasks.

The proposal to increase the number of medical schools has several limitations. It costs 25 to 50 million dollars to build a medical school, and three to five million dollars a year to keep it in operation.[3] Because of the economic squeeze facing health institutions today, it seems unreasonable to expect that this type of funding will be available. Furthermore, it takes at least five years to train a physician, and several more if he wishes to become a specialist. Also, new schools would siphon off physicians to teach, thus draining the community of experienced practitioners.[4] Establishment of medical schools to train physicians is therefore a long-range project involving great expense.

The idea of expanding current paramedical fields also has severe limitations. Most hospital-oriented occupations, such as EEG Technician, EKG Technician, Occupational Therapist, and all classes of nurses are already burdened with a heavy workload. Furthermore, an increase in the specialization of current medical personnel would require additional training, at a high cost of time and money.

The final suggestion, to establish a new type of personnel, the Physician's Assistant, seems the most feasible way to meet the current crisis: First, as one expert said, "...If you increase the efficiency of all doctors by as little as, say, 4 percent, you've done the same thing as double the year's output of all medical schools."[5] Second, there is a large group of ex-medics leaving the armed forces each year who could be recruited into Physician's Assistant programs. Hence, this report concentrates entirely on the area of Physician's Assistant programs, incorporating information about current programs, opinions of various experts, and a survey designed to ascertain the feelings of local physicians towards the Physician's Assistant. Finally, there is a statement concerning the recommendations of the AHPP with respect to this new paramedical occupation.

TYPES OF PHYSICIAN'S ASSISTANTS

A problem common to many of the new allied health professions concerns a definition of the types of person best suited to meet modern health care requirements. In the occupation of Physician's Assistant, two basic concepts are emerging from the schools and institutions developing curricula in this area. The first viewpoint conceives of the Physician's Assistant as a generalist, accountable to the physician, with a broad scope of responsibility. The second identifies him as a specialist or highly trained technician with minutely detailed duties to perform under the direct supervision of a physician.

In a report of the American Association of Medical Colleges Task Force on Physician's Assistant Programs, guidelines were suggested for defining functional levels of assistants. Three levels of personnel were described. The first, "Type A" Assistant, is a generalist capable of approaching the patient, collecting historical and physical data, organizing the data, and presenting

it in such a way that the physician can visualize the medical problem and determine the next appropriate diagnostic or therapeutic step. Under the responsible supervision of the physician, the Type A Assistant is capable of performing diagnostic and therapeutic procedures, and coordinating his own activities with those of other more technical assistants. Although he functions with supervision, he should be qulaified under certain defined limits and circumstances to perform away from the immediate surveillance of the physician.[6]

Programs currently training such personnel include Medex, Duke University, and Alderson-Broaddus College and Broaddus Hospital, as well as a variety of other institutions. The experimental curriculum at Alderson-Broaddus College covers a period of four years and is meant to equip students with an understanding of the disease process (chronic and acute) and the doctor's decision concerning them. Upon graduation, the student is prepared to take histories of patients, conduct physical examinations, and detect abnormal signs and symptoms.

The second and third levels of personnel are capable of performing tasks within narrower limitations and specialization of responsibility. "...'Type B' is characterized by a more limited ability to integrate and interpret findings, and as a result, is less capable of independent action. Within his own area of skill and knowledge, however, he may be equal in ability to the Type A assistant or to the physician himself..."[7] The "Type C" Assistant is competent to perform a single defined task or series of tasks which require no judgmental decisions and should be done under the direct supervision of a physician.[8]

An example of a program which trains Physician's Assistants to specialize in a particular area of function is now being developed at the Marshfield Clinic, Marshfield, Wisconsin. Physician's Assistants are being trained in pediatrics, oncology, gastroenterology, ophthalmology, neurosurgery, and general surgery. For instance, the student specializing in diabetic treatment will learn insulin usage, urine testing, and dietary management. He will also learn how to interview certain diabetics (when the disease is stable) exclusively during routine diabetic visits. Programs at the Marshfield Clinic generally involve about three months of on-the-job training before the student becomes fully functional.

MANPOWER

The intent of Physician's Assistant programs is to establish a new occupational category of health care personnel comprised of long-range, career-oriented graduates. If the success of most training programs is largely dependent on the quality of its participating students, then intelligent, career-oriented persons must be recruited. For example, the American Association of Medical Colleges recommends that the prospective Physician's Assistant possess an ability to use written and spoken language in effective communication with patients, physicians, and others. In addition, he should meet the high ethical standards needed to safeguard the interests of patients and others. Finally, he must possess basic quantitative skills to ensure proper evaluation and interpretation of tests.[9] The Physician's Assistant program at Duke University School of Medicine has established the following prerequisites for applicants seeking entrance into their program: (1) a high school diploma or its equivalent; (2) three letters of references; (3) previous experience in health with one year of patient contact;

(4) an extensive personal interview; and (5) completion of the Scholastic Aptitude Test and the Math Achievement Test Level I.[10]

Although the current trend is toward the recruitment of male applicants, especially those who have had health care experience in the armed forces, the field is open to members of both sexes. However, the recruitment of men has been emphasized primarily because they are usually a more stable source of manpower. Another reason for male recruitment is the heavy demands made on the Physician's Assistant in terms of lengthy hours of work, and thus the occupation can be a strenuous one.

A great percentage of the Physician's Assistant programs have recruited their applicants from the pool of former military corpsmen. "I think they will constitute the main source of manpower," says Dr. Robert Howard, Director of Duke Medical Program. "There's not much of a pool of males outside this one, which we're emphasizing, although we are not limiting our program to men."[11] It is estimated by the National Research Council that 30,000 military corpsmen, with varying degrees of health care experience, are being discharged from the armed forces annually.

The training of the military corpsmen can be quite extensive. The range of formal training extends from the 640 hours of the "Navy A" corpsman, the 900 hours of the Air Force corpsman, the 1,400 hours of the Special Forces medic and the "Navy B" corpsman, to the 1,900 hours of formal medical training given to the 91C corpsman by the Army. Dr. Thomas L. Points of the University of Oklahoma Medical Center doubts that 30,000 medics are actually being discharged yearly. "That 30,000 figure includes the lowest level of aideman. The man we're talking about is the independent duty operator, and I doubt there are more than 10,000 of them."[12] The Medex and Duke programs have recruited most of their students from this latter group.

STANDARDIZATION

One of the problems facing the Physician's Assistant program is a lack of standardization in training. Many diverse programs are in existence, training personnel for a variety of health care functions. A critical problem associated with this lack of standardization of programs concerns physicians' inability to identify the tasks an assistant may perform. The case of Al Bibby, who graduated from the Duke University Physician's Assistant program and went to work last year in King City, California, provides an example. Not knowing the extent of Bibby's talents, and fearing legal implications (see Appendix for legal status in California), physicians at first gave him limited responsibilities. With time, his responsibilities increased, yet the very fact that there was no detailed listing of what he could and could not do handicapped him and his employers. Furthermore, it may be difficult for students to locate jobs if their occupational roles have not been established.

METHODS

The background research preceding formulation of the survey questionnaire included a review of the literature, discussions with local doctors, an interview with a graduate from the Duke University Physician's Assistant Program, and a personal look at the various task lists available for the occupation. The current literature on the subject revealed the broad scope of this emerging occupation, and indicated a need for a narrower focus of research in order to gain some degree of knowledgeability about the field. Consequently, it was decided to investigate a category of Physician's Assistant commonly called a "generalist," the type that would be engaged to aid the general practitioner in his day-to-day practice.

A major area of ambiguity concerns the delineation of tasks that a physician would delegate to a properly trained assistant. In order to tap the feelings of physicians on this issue, it was decided that a survey questionnaire would be developed. Having narrowed the field of inquiry, local physicians and experts in the field were then contacted. They provided insight into the problems and areas of confusion which characterize the emergence of this unique occupation. In addition, they supplied a list of prospective survey respondents.

The questionnaire in the form of a task list was then developed, relying heavily upon the task lists formalized by Duke University and the Medex Programs at the University of Washington. The questionnaire (shown in the Appendix) was then mailed to the survey respondents. These included eight general practitioners, sixteen physicians in internal medicine, and two surgeons, making a total of 26 respondents.

SURVEY RESULTS

Physicians were divided on the question of delegating the history-taking task to an assistant (see Appendix). Comments often heard during the initial interviews indicated that the history-taking procedure is considered to be the most important part of the patient-physician relationship and that it is solely the physician's task for two reasons. First, even though many standard questions are asked during a history-taking interview, a physician is likely to be sensitive to certain nuances which often reveal valuable information; these might be overlooked by an assistant doing the interview. Second, physicians feel that a patient may not confide fully in an assistant during a history-taking session and hence vital information could be withheld. In addition, the survey indicated that doctors also preferred to perform physical examinations themselves. This is probably due to the same factors as stated above.

Under the section entitled "Coordinate initial diagnostic procedures," the respondents indicated that they would be willing to delegate a number of tasks to a well-trained assistant. Tasks which were designated by 14 or more of the respondents are delegable to an assistant are listed below:

1. Nasogastric intubation and gastric analysis studies
2. Colostomy care
3. Routine dressing changes and wound debridement
4. Catheterization of male patient
5. Starting and regulation of blood transfusion
6. Drawing difficult blood
7. Spirometry
8. Simple repair of recent wounds (suturing)
9. Dressing of wounds (put in and remove sutures)
10. Cardiopulmonary resuscitation
11. Performing EKG
12. Skin-testing
13. Making pap stains
14. Vital sign taking
15. Taking occular pressure
16. Arranging for consultation

Other tasks in this area were considered too critical to allow a subordinate to perform them unassisted.

In the category of office and clinical functions, physicians indicated that they could delegate all the tasks tested, with one exception, to a properly trained assistant. They believe that consultation with the patient regarding disease limitations could involve assistance, but that the physician should provide the major input.

Under the category entitled "Laboratory Functions," physicians felt that they would let an assistant perform most of the designated work. It is possible that doctors would allow assistants to perform these tasks because they are easy and are already being done by technicians. Whether physicians would permit an assistant to order these tests is a question requiring further research.

In the area of Roentgenography, physicians indicate that they would allow an assistant to take or assist in taking simple X-rays but not to interpret them. Those surveyed were willing, however, to let an assistant do much of the Health Education and personal counselling that physicians now do. Moreover, they were willing to let assistants screen night calls and help in making house calls and nursing home rounds.

CONCLUSIONS

The inability of existing health manpower to meet the growing demands for health services has prompted the emergence of a new occupational category, the Physician's Assistant. A number of programs designed to educate an assistant for the physician are now in existence. However, due to a variety of training procedures and certification requirements, there is a conspicuous lack of standardization among the Physician's Assistant programs. A greater uniformity of training would facilitate the physician's determination of the Physician's Assistant competence and areas of responsibility, thus enabling a more efficient health care system.

The manpower pool for this new occupation could be supplied by drawing from the corpsmen who are discharged or retired from the armed forces each year. The results of the AHPP survey indicate that several different types of assistants are foreseen. The first type would be a generalist who would perform numerous tasks including collecting historical and physical data, like those now graduating from Medex, Duke University, and Alderson-Broaddus Colleges. Other types of assistants would perform, in limited areas, specific tasks delegated to them.

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APPENDIX

LEGAL STATUS OF PHYSICIAN'S ASSISTANT IN CALIFORNIA

Of concern to many physicians are the legal implications related to the use of Physician's Assistants. Because of the high cost of malpractice insurance, there is general reluctance among physicians to take the risk of hiring a Physician's Assistant.

An example of the problem as it has existed in California is a case in King City where physicians in a large clinic dealing with migratory farm workers hired a graduate of Duke University Physician's Assistants Program. The Physician's Assistant was qualified to perform a variety of tasks; however, the physicians were unable to utilize his talents because of the legal barriers in this state at the time.

In April of 1970, Assembly Bill AB2109 passed the California State Senate by a vote of 38 to 0, and was signed into action by the Governor. The bill's objectives are better utilization of the physician's skills to allow for innovative Physician's Assistant programs, and establishment of a system for certifying or licensing Physician's Assistants.

In essence, major provisions of the bill are as follows:

1. That notwithstanding any other provision of the law, a Physician's Assistant can perform medical duties under a physician's supervision.

2. That the Board of Medical Examiners shall issue certificates of approval for Physician's Assistant programs which meet their standards.

3. Full credit shall be given, through the device of testing, etc. to people with previous experience in health fields.

4. Licensed physicians must apply to the Board for authorization to supervise Physician's Assistants.

5. The Board cannot approve more than two Physician's Assistants for any single physician.

6. The Board shall approve the licensed physician's application to supervise a Physician's Assistant who is a graduate of an approved program.

7. The eight-member committee appointed by the Governor (entitled The Advisory Committee on Physician's Assistants Programs) shall advise the Board on matters pertaining to the education of Physician's Assistants.

8. The Board is to report to the legislature no later than January 1, 1972, on the following items:

   a. Number and types of programs that have been approved.

   b. Number, education and qualifications of each Physician's Assistant.

   c. Background information concerning the physicians who supervise Physician's Assistants.

The passage of this bill marks a major breakthrough for health care in California. (See following copy of the bill.)

Copy of Assembly Bill No. 2109

Assembly Bill No. 2109

CHAPTER 1327

An act to add Section 2377.5 to, and to add Article 18 (commencing with Section 2510) to Chapter 5, Division 2 of, the Business and Professions Code, relating to medical practice.

[Approved by Governor September 17, 1970. Filed with Secretary of State September 17, 1970.]

The people of the State of California do enact as follows:

SECTION 1. Section 2377.5 is added to the Business and Professions Code, to read:

2377.5. The use, supervision, or employment by a physician of a graduate of an approved program as defined in Section 2511, without the approval of the Board of Medical Examiners of the State of California, constitutes unprofessional conduct within the meaning of this chapter.

SEC. 2. Article 18 (commencing with Section 2510) is added to Chapter 5, Division 2 of the Business and Professions Code, to read:

Article 18. Physicians' Assistants

2510. In its concern with the growing shortage and geographic maldistribution of health care services in California, the Legislature intends to establish in this article a framework for development of a new category of health manpower—the physician's assistant.

The purpose of this article is to encourage the more effective utilization of the skills of physicians by enabling them to delegate health care tasks to qualified physician's assistants where such delegation is consistent with the patient's health and welfare.

This article is established to encourage the utilization of physician's assistants by physicians, and to provide that existing legal constraints should not be an unnecessary hindrance to the more effective provision of health care services. It is also the purpose of this article to allow for innovative development of programs for the education of physician's assistants.

At the termination of this article and upon review of reports and recommendations from the Board of Medical Examiners of the State of California and others with expertise in health manpower programs, it is the intent of the Legislature to establish a system of certifying or licensing physician's assistants so that the quality of service is insured.

2511. As used in this article:

(a) "Board" means the Board of Medical Examiners of the State of California.

(b) "Approved program" means a program for the education of physician's assistants which has been formally approved by the board.

(c) "Trainee" means a person who is currently enrolled in an approved program.

(d) "Physician's assistant" means a person who is a graduate of an approved program and is approved by the board to perform medical services under the supervision of a physician or physicians approved by the board to supervise such assistant.

2512. Notwithstanding any other provision of law, a physician's assistant may perform medical service when such services are rendered under the supervision of a licensed physician or physicians approved by the board.

2513. Notwithstanding any other provision of law, a trainee may perform medical services when such services are rendered within the scope of an approved program.

2514. No medical services may be performed under this article in any of the following areas:

(a) The measurement of the powers or range of human vision, or the determination of the accommodation and refractive states of the human eye or the scope of its functions in general, or the fitting or adaptation of lenses or frames for the aid thereof.

(b) The prescribing or directing the use of, or using, any optical device in connection with ocular exercises, visual training, vision training or orthoptics.

(c) The prescribing of contact lenses for, or the fitting or adaptation of contact lenses to, the human eye.

(d) The practice of dentistry or dental hygiene as defined in Chapter 4 (commencing with Section 1600) of this division.

Nothing in this section shall preclude the performance of routine visual screening.

2515. (a) The board shall issue certificates of approval for programs for the education and training of physician's assistants which meet board standards.

(b) In developing criteria for program approval the board shall give consideration to, and encourage, the utilization of equivalency and proficiency testing and other mechanisms whereby full credit is given to trainees for past education and experience in health fields.

(c) The board shall adopt and publish standards to insure that such programs operate in a manner which does not endanger the health and welfare of patients who receive services within the scope of the program. The board shall review the quality of the curriculum, faculty, and the facilities of such programs, and shall issue certificates of approval, and at such other times as it deems necessary to determine that the purposes of this article are being met.

2516. The board shall formulate guidelines for the consideration of applications by a licensed physician or physicians to supervise physician's assistants. Each application made by a physician or physicians to the board shall include all of the following:

(a) The qualifications, including related experience, possessed by the proposed physician's assistant.

(b) The professional background and specialty of the physician or physicians.

(c) A description by the physician of his, or physicians of their, practice, and the way in which the assistant or assistants are to be utilized.

The board shall not approve an application by any one physician to supervise more than two physician's assistants at any one time.

2517. The board shall approve an application by a licensed physician or physicians to supervise a physician's assistant where the board finds that the proposed assistant is a graduate of an approved program, and is fully qualified by reason of experience and education to perform medical services under the supervision of a licensed physician.

2518. Any person other than one who has been approved by the board who holds himself out as a "physician's assistant," or who uses any other term indicating or implying that he is a physician's assistant, is guilty of a misdemeanor.

2519. There is established an Advisory Committee on Physician's Assistant Programs which shall be advisory to the board on matters pertaining to the education of physician's assistants and approval of applicants to supervise a physician's assistant. The committee shall consist of eight members appointed by the Governor.

2519.5. The members of the committee shall include one representative of the board, who shall be chairman of the committee, a representative of a California medical school, an educator with experience in the development of health manpower programming, one physician, and one registered nurse.

2519.7. Each member of the committee shall receive a per diem and expenses as provided in Section 103.

2520. The board shall report to the Legislature no later than (January 1, 1972.)

(a) The number and types of programs which have been approved and a description of each.

(b) The number of physician's assistants who have been approved for supervision under this article.

(c) The education and qualifications of each physician's assistant.

(d) Background concerning the numbers of physicians supervising assistants, their specialties, and the counties in which they practice.

(e) The scope of practice of approved physician's assistants.

(f) Recommendations for establishing a permanent program of certification or licensure for physician's assistants.

2520.5. In developing criteria for program approval and approval of applications to utilize physician's assistants and in preparing its report to the Legislature, the board shall consult with and seek the advice of professional medical organizations and specialty societies.

2521. (a) A fee of ten dollars ($10) shall be charged for each application to the board by a physician or physicians to supervise each physician's assistant.

(b) A fee of fifty dollars ($50) shall be charged for each approval granted by the board. Approval shall be limited to one year.

(c) The board shall renew approval upon application for such renewal, and a fee of twenty-five dollars ($25) shall be paid for such renewal.

(d) A fee of fifty dollars ($50) shall be charged to each applicant seeking program approval by the board.

(e) A fee of five hundred dollars ($500) shall be charged to each approved program located in California.

2522. The board may adopt such regulations as are reasonably necessary to carry out the purposes of this article.

COPY OF SURVEY QUESTIONNAIRE

University of California, Los Angeles
Division of Vocational Education

ALLIED HEALTH PROFESSIONS PROJECTS

Research and Demonstration Grant 8-0627
U. S. Office of Education, Bureau of Research
Department of Health, Education and Welfare

This survey is designed to assess the need for Physician's Assistants in the Los Angeles area. Your answers will be valuable to various health and educational facilities that are now developing curricula for training Physician's Assistants.

In order to prepare relevant courses, these facilities must know what kinds of tasks you would like to delegate to properly trained personnel. When filling out this questionnaire, please do not make any assumptions about the educational level of such an assistant. Once the required tasks are specified, a curriculum can be developed to prepare qualified trainees.

PHYSICIAN ASSISTANT
TASK LIST

I. CLINICAL FUNCTIONS	Check if you would allow a properly trained assistant to perform this task.	Check if you would allow a properly trained assistant to assist you in performing this task.	Check if an M.D. alone should perform this task.	
A. Initial patient history.	5	0	13	
1. Routine adult male	10	4	12	
2. Routine adult female	9	5	11	
3. Routine child	10	5	8	
4. Major illness adult male and adult female	1	9	16	
5. Sick child	2	6	11	
B. Conduct physical examination	0	1	16	
1. Routine adult male	2	4	19	
2. Routine adult female	2	5	16	
3. Routine child	1	7	15	
4. Major illness adult male and adult female	0	5	19	
5. Sick child	0	6	17	
C. Coordinate initial diagnostic procedures (perform and or assist in following procedures)	0	4	2	
1. Infuse intravenous medication and evaluate fluid.	10	16	0	
2. Lumbar puncture	4	14	8	
3. Nasogastric intubation and gastric analysis studies.	21	6	0	
4. Sigmoidoscopy	2	7	18	
5. Duodenal and small bowel intubation	11	10	3	
6. Upper endoscopy	1	5	20	

I. CLINICAL FUNCTION (Continued)	Check if you would allow a properly trained assistant to perform this task.	Check if you would allow a properly trained assistant to assist you in performing this task.	Check if an M.D. alone should perform this task.	
7. Colostomy care	24	3	0	
8. Esophageal dilation	3	8	17	
9. Routine dressing changes and wound debridement	15	10	2	
10. Initial treatment of burn	3	10	11	
11. Catheterization of male patient, including catheter change and care--I.V. cutdown where indicated	21	7	0	
12. Start and regulate blood transfusion	20	6	0	
13. Paracentesis and thoracentesis	3	12	12	
14. Draw difficult bloods	16	9	1	
15. Spirometry	20	5	1	
16. Skin biopsy	7	8	11	
17. Simple repair of recent wounds. (suturing).	15	4	8	
18. Dress wounds (put on and remove sutures).	17	7	2	
19. Cardiopulmonary resuscitation.	17	9	5	
20 Bone marrow biopsy	4	11	10	
21. Perform EKG	26	1	0	
22. Skin testing	22	3	1	
23. Pap stains	17	3	5	
24. Vital sign taking	26	1	0	
25. Occular pressure	15	5	3	

I. CLINICAL FUNCTIONS (Continued	Check if you would allow a properly trained assistant to perform this task.	Check if you would allow a properly trained assistant to assist you in performing this task.	Check if an M.D. alone should perform this task.	
D. Arrange for consultation	14	5	5	
E. Perform hospital daily rounds; record patient progress on hospital records	4	18	6	
F. Dictate narrative study	7	7	12	
G. Discharge physical examination	13	4	12	
H. Other	1	0	0	
II. OFFICE AND CLINIC FUNCTIONS (ADMINISTRATIVE)				
A. Supervise technical personnel; assume management of administrative functions within clinic	22	4	1	
B. Maintain supplies of sterile instruments	26	1	0	
C. Accumulate and organize history, physical and laboratory data on patients for the attending physician.	23	3	1	
D. Consult with patient regarding disease limitations and special precautions	12	10	5	
E. Screen incoming phone calls to physician	25	2	0	
F. Provide assistance in clinics during manpower shortage hours	20	7	0	
G. Take care of insurance forms	25	1	0	
H. Review medical records	21	2	5	
I. Other	0	0	0	
III. LABORATORY FUNCTIONS (ORDER AND OR PERFORM)				
A. Urinanalysis	26	1	0	

III. LABORATORY FUNCTIONS (ORDER AND/OR PERFORM)	Check if you would allow a properly trained assistant to perform this task.	Check if you would allow a properly trained assistant to assist you in performing this task.	Check if an M.D. alone should perform this task.	
B. WBC	25	1	0	
C. Differential	25	1	0	
D. Hemocrit/hemoglobin	25	1	0	
E. Prothrombin time	25	1	0	
F. KOH prep	23	1	0	
G. I.V. glucose tolerance test	20	4	0	
H. 24 hour diurnal studies	21	1	0	
I. Tolvutamide tolerance test	12	6	2	
J. Arginine infusion test	11	7	1	
K. Hemotology studies	13	4	3	
L. Stool studies	21	3	0	
M. Screening microbiology	22	2	0	
N. Other	3	0	0	
IV. ROENTGENOGRAPHY (ORDER AND/OR PERFORM)				
A. Fractures	12	10	2	
B. Take and interpret chest and extremity x-ray	1	11	12	
C. Abdomen	10	6	7	
D. IVP	3	10	12	

IV. ROENTGENOGRAPHY (ORDER AND/OR PERFORM)	Check if you would allow a properly trained assistant to perform this task.	Check if you would allow a properly trained assistant to assist you in performing this task.	Check if an M.D. alone should perform this task.	
E. Take and interpret phonocardio scan	4	14	8	
F. Other	1	0	0	
V. HEALTH EDUCATION AND COUNSELING				
A. Pre-marital counseling	15	5	8	
B. Family problem counseling	9	10	9	
C. Individual counseling	9	6	13	
D. General education functions:	6	2	3	
1. Smoking	14	6	5	
2. Alcohol	14	6	6	
3. Drugs	12	7	6	
4. Obesity	15	5	6	
5. Sex	11	9	7	
E. Treatment related education	4	1	0	
1. Diabetes	19	7	1	
2. Diets	19	7	1	
3. Exercise and weight control	19	7	1	
F. Other	0	0	0	

VI. OTHERS	Check if you would allow a properly trained assistant to perform this task.	Check if you would allow a properly trained assistant to assist you in performing this task.	Check if an M.D. alone should perform this task.	
A. Screen night telephone calls	21	6	0	
B. Make house calls	9	15	4	
C. Nursing home rounds	13	13	2	
D. Other	0	0	0	
(Taken from Medex Task List and Duke Univ. Task List)	31			